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10/510,685

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Etienne Dunas

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SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

HO, HUY C

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

08/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/510,685

Applicant(s)

DUNAS ET AL.

Examiner

Huy C. Ho

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings (i.e., figures 1-4) are objected to because not being descriptive. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject

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matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-5, 7-17 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emmons Jr., et al. (6,491,257) and further in view of Lazaris-Brunner et al. (6,498,922).

Consider claim 1, (Original) Emmons discloses a satellite-based monitoring, measurement or data collection system (see the abstract, figure 1, col 3 lines 1-10), comprising:

a monitoring, measurement or data collection system having a plurality of monitoring stations (4) for remote monitoring, measurement or data collection and for providing data, to respective computation centers (3) (col 2 lines 42-50, 65-67, col 3 lines 1-10), and;

a satellite system using at least one satellite (2) (figure 1, col 2 lines 35-65, col 3 lines 10-15); characterized in that said up-link data received by said satellite (2) comprises a digital channel corresponding to a respective computation center (3) (col 2 lines 35-65, col 3 lines 10-13); said computation center (3) is connected to a down-link adapter (7) connected to a receiver or group of receivers (6) (col 2 lines 42-50, 65-67, col 3 lines 1-10); and said down-link adapter is adapted for extracting, from said down-link transmission, only said digital channel corresponding to the respective computation center (3) (col 2 lines 42-50, 65-67, col 3 lines 1-10).

Emmons does not specifically show having an on-board processor for multiplexing up-link data received and broadcasting said multiplexed data in down-link transmission. Lazaris-Brunner discloses an on-board processor for multiplexing up-link data received and broadcasting said multiplexed data in down-link transmission (see figure 2-5, col 3 lines 28-56, col 4 lines 52-67, col 5 lines 1-15, col 8 lines 1-17).

Since both Emmons and Lazaris-Brunner teach satellite communication system, it would have been obvious to one skilled in the art to modify Emmons teaching, and have an on-board processor for multiplexing up-link data received and broadcasting said multiplexed data in down-link transmission, taught by Lazaris-Brunner, to improve the direct broadcast satellite system, as discussed by Lazaris-Brunner (see col 1 lines 9-67, col 2 lines 1-67, col 3 lines 1-25).

Consider claim 14, (Original) a method for interconnecting elements of a monitoring, measurement or data collection using a satellite system, comprising:

Emmons discloses:

remote monitoring, measurement or data collection by means of a plurality of monitoring stations (4) and providing data to respective computation centers (3) (col 2 lines 42-50, 65-67, col 3 lines 1-10),

and

at least one satellite (2) of said system (col 2 lines 35-65, col 3 lines 10-15);

characterized by the further steps of:

transmitting a digital channel in said up-link data to said satellite (2), said channel corresponding to a respective computation center (3), said computation center (3) being connected to a down-link adapter (7) connected to a satellite receiver or a group of satellite receivers (6) (col 2 lines 42-50, 65-67, col 3 lines 1-15); and

extracting from said down-link transmission, by said down-link adapter, only said digital channel corresponding to the respective computation center (3) (col 2 lines 42-50, 56-65, col 3 lines 1-10).

Emmons does not specifically show having an on-board processor for multiplexing up-link data received and broadcasting said multiplexed data in down-link transmission. Lazaris-Brunner discloses an on-board processor for multiplexing up-link data received and broadcasting said multiplexed data in down-link transmission (see figure 2-5, col 3 lines 28-56, col 4 lines 52-67, col 5 lines 1-15, col 8 lines 1-17).

Since both Emmons and Lazaris-Brunner teach a satellite communication system, it would have been obvious to one skilled in the art to modify Emmons teaching, and have an on-board processor for multiplexing up-link data received and broadcasting said multiplexed data in down-link transmission, taught by Lazaris-Brunner, to improve the direct broadcast satellite system, as discussed by Lazaris-Brunner (see col 1 lines 9-67, col 2 lines 1-67, col 3 lines 1-25).

Consider claim 2, (Original) A system according to claim 1, Emmons, as modified by Lazaris-Brunner, further discloses wherein each of said monitoring stations (4) is connected through an up-link adapter (5) to the satellite up-link broadcasting station (1) (col 2 lines 35-50, 57-65).

Consider claims 3, 16, (Currently Amended) A system according to claims 1, 12, Emmons, as

modified by Lazaris-Brunner, discloses said satellite system is a digital direct broadcast satellite system (see the abstract, figure 2, col 1 lines 9-15, col 3 lines 28-32).

**Consider claim 4, (Currently Amended)** A system according to ~~any one of the previous claim 1,~~ Emmons, as modified by Lazaris-Brunner, discloses wherein at least one of said monitoring stations (4) has at least one channel from the up-link transmission allocated thereto (col 7 lines 1-14).

**Consider claim 5; (Original)** A system according to claim 4, Emmons, as modified by Lazaris-Brunner, discloses wherein several remote channels, or several monitoring stations (4) are grouped together using sub-multiplexing channel capabilities of said digital direct broadcast satellite system (col 8 lines 1-18).

**Consider claim 7 (Currently Amended)** A system according to ~~any one of the previous claim 1,~~ Emmons, as modified by Lazaris-Brunner, further discloses wherein time and/or date is broadcast to said down-link adapters (7), and optionally to said digital direct broadcast satellite receivers (6) (col 2 lines 65-67, col 3 lines 1-9).

**Consider claim 8, (Original)** Emmons, as modified by Lazaris-Brunner, discloses a down-link adapter for extracting at least one channel from a down-link transmission as claimed in claim 1 (col 6 lines 33-50, col 7 lines 1-14, col 11 lines 23-30).

**Consider claim 9, (Original)** Emmons, as modified by Lazaris-Brunner, discloses a down-link adapter according to claim 8 for converting data framing from said satellite down-link data channel rate to message format and/or converting data rate to rate adapted to a cyclic data rate of said monitoring, measurement or data collection system (col 2 lines 33-50, col 10 lines 32-41, 52-67, col 11 lines 49-67).

**Consider claim 10, (Currently Amended)** Emmons, as modified by Lazaris-Brunner, discloses a down-link adapter according to ~~any one of claims 8 or 9~~ claim 8 wherein said down-link adapter provides data to another adapter connected to a monitoring station (4) (col 6 lines 33-50, col 7 lines 1-32).

**Consider claim 11 (Original)** Emmons, as modified by Lazaris-Brunner, discloses an up-link

adapter for converting signals received from a monitoring station (4) of a monitoring, measurement or data collection system, into signals suitable for digital up-link transmission as claimed in claim 2 (col 2 lines 33-50, col 10 lines 32-41, 52-67, col 11 lines 49-67).

Consider claim 12, (Original) Emmons, as modified by Lazaris-Brunner, discloses an up-link adapter according to claim 11 for converting data message format from said monitoring station (4) to an up-link format of said satellite system and/or converting data rate to an uplink rate adapted to said satellite system (col 2 lines 33-50, col 10 lines 32-41, 52-67, col 11 lines 49-67).

Consider claim 13, (Currently Amended) Emmons, as modified by Lazaris-Brunner, discloses an up-link adapter according to ~~claims 10 and 11~~ claim 10 wherein said up-link adapter (5) receives data from another adapter such as a down-link adapter (7) (col 6 lines 33-50, col 7 lines 1-32).

Consider claim 15, (Original) Emmons, as modified by Lazaris-Brunner, discloses a method according to claim 14 wherein said up-link broadcasting station (1) performs up-link broadcasting of data received from an up-link adapter (5) connected thereto (col 6 lines 33-50, col 7 lines 1-15, 35-55).

Consider claim 17, (Original) Emmons, as modified by Lazaris-Brunner, discloses a method according to claim 14 wherein said broadcasting of the multiplexed data in down-link transmission is performed in time division multiplexing, TDM mode (the abstract, col 3 lines 45-55).

Consider claim 20, (Original) A method for interconnecting adapters (5; 7) as in claim 13, Emmons, as modified by Lazaris-Brunner, further discloses wherein data is returned from a down-link adapter (7) to an Up-link adapter (5) transferring time information and/or data information between said adapters (5; 7) (col 2 lines 65-67, col 3 lines 1-9).

Consider claim 21, (Currently Amended) A method for use in the adapter of claim 12 Emmons, as modified by Lazaris-Brunner, discloses wherein a data message is delayed before being put into a next frame generated at a digital direct broadcast satellite channel rate, using a frame produced faster than needed by the rate of monitoring, measurement or data collection, thus giving rise to a so-called marker



frame carrying data such as timing data (col 2 lines 33-50, col 10 lines 32-41, 52-67, col 11 lines 49-67).

Consider claim 22, (Currently Amended) A method for use in the adapter of claim 8, Emmons, as modified by Lazaris-Brunner, discloses wherein data related to time and/or date is/are broadcast through a digital direct broadcast satellite system and wherein a frame received at a digital direct broadcast satellite channel rate, is converted into a message at a monitoring, measurement and data collection rate with the exception of a marker frame carrying data such as timing data (col 2 lines 33-50, col 8 lines 17-30, col 10 lines 32-41, 52-67, col 11 lines 49-67).

Consider claim 23, (Original) A method according to claim 22 Emmons, as modified by Lazaris-Brunner, further discloses wherein said timing data is used for evaluating transit time or for providing time to any other unit connected thereto such as a display (col 2 lines 65-67, col 3 lines 1-9).

Consider claim 24, (Original) A method according to claim 23 Emmons, as modified by Lazaris-Brunner, further discloses wherein a transit time of a message from a time instant it is transmitted from an up-link adapter until a time instant it is received by a down-link adapter through a digital direct broadcast satellite is evaluated (col 2 lines 65-67, col 3 lines 1-9).

Consider claim 25, (Original) A method according to claim 13 Emmons, as modified by Lazaris-Brunner, discloses wherein a computation center (3) broadcasts through a digital direct broadcast satellite, to said monitoring stations (4) by means of an up-link adapter (5) incorporated therein and a monitoring station (4) having a down-link adapter (7) detects a channel specifically addressed thereto, providing data to said monitoring station, said data being usable for implementing a unicast, multicast or broadcast addressing scheme (col 6 lines 33-67, col 7 lines 1-55).

6. Claims 6 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Emmons Jr., et al.** (6,491,257), in view of **Lazaris-Brunner et al.** (6,498,922) and further in view of **Zhao et al.** (2002/0135511).

**Consider claim 6, (Currently Amended)** A system according to ~~any one of the previous claim 1,~~ Emmons, as modified by Lazaris-Brunner, discloses wherein a monitoring station (4) has a receiver for message transmission using data extracted from said down-link channel multiplex content (**col 6 lines 33-50, col 7 lines 1-14, col 11 lines 23-30**). Emmons, as modified by Lazaris-Brunner, does not specifically show synchronizing. Zhao discloses synchronizing (see sections [1], [8], [18], [24], [33]).

Since both Emmons, Lazaris-Brunner and Zhao, teach a satellite communication system, it would have been obvious to one skilled in the art to modify Emmons teaching, as modified by Lazaris-Brunner, and have synchronizing, taught by Zhao, to improve the satellite position system, as discussed by Zhao (see sections [2]-[5], [11]-[12]).

**Consider claim 18, (Original)** Emmons, as modified by Lazaris-Brunner, discloses a method according to claim 14 wherein marker indexing is used in said down-link transmission as a signal (**col 8 lines 17-30**). Emmons, as modified by Lazaris-Brunner, does not specifically show synchronizing. Zhao discloses synchronizing (see sections [1], [8], [18], [24], [33]).

Since both Emmons, Lazaris-Brunner and Zhao, teach a satellite communication system, it would have been obvious to one skilled in the art to modify Emmons teaching, as modified by Lazaris-Brunner, and have synchronizing, taught by Zhao, to improve the satellite position system, as discussed by Zhao (see sections [2]-[5], [11]-[12]).

**Consider claim 19, (Original)** A method according to claim 18, Emmons, as modified by Lazaris-Brunner and Zhao, further teaches wherein said synchronization is also used for sub-multiplexing up-link channels transmission (sections [37]-[41], [43]).

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy C. Ho whose telephone number is (571) 270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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DUC M. NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600